

Amendments to the Claims

The current listing of the claims replaces all previous amendments and listings of the claims.

1. (Currently Amended) An image forming apparatus comprising:
an image carrier;
developing means for developing a latent image formed on said image carrier by depositing a toner to thereby form a corresponding toner image;
image transferring means for forming an electric field between said image carrier and a subject body of image transfer to thereby transfer the toner image from said image carrier to said subject body;
cleaning means using a bladeless system for removing a residual toner left on said image carrier after image transfer without scraping off said residual toner with a blade member; and
a flexible member disposed upstream of the cleaning means and affixed at one edge portion and having a flat surface formed with a plurality of grooves at the other edge portion, said plurality of grooves each extending over an image forming range of a surface of said image carrier perpendicularly to a direction in which said surface of said image carrier is movable;
wherein said flexible member is positioned such that said flat surface contacts the surface of said image carrier with said flexible member being deformed.

2. (Original) The apparatus as claimed in claim 1, wherein said flexible member comprises a sheet member formed of polyethylene terephthalate.

3. (Currently Amended) ~~The~~ An image forming apparatus as claimed in claim 2,
comprising:

an image carrier;

developing means for developing a latent image formed on said image carrier by depositing a toner to thereby form a corresponding toner image;

image transferring means for forming an electric field between said image carrier and a subject body of image transfer to thereby transfer the toner image from said image carrier to said subject body;

cleaning means using a bladeless system for removing a residual toner left on said image carrier after image transfer without scraping off said residual toner with a blade member; and

a flexible member affixed at one edge portion and having a flat surface formed with a plurality of grooves at the other edge portion, said plurality of grooves each extending over an image forming range of a surface of said image carrier perpendicularly to a direction in which said surface of said image carrier is movable;

wherein said flexible member is positioned such that said flat surface contacts the surface of said image carrier with said flexible member being deformed,

wherein said flexible member comprises a sheet member formed of polyethylene terephthalate, and

wherein said sheet member is positioned such that said flat ~~portion~~ surface contacts the surface of said image carrier with a pressure of 0.1 N or above, but 0.8 N or below.

4. (Currently Amended) The apparatus as claimed in claim 3, wherein said flat ~~portion~~ surface has a surface roughness Rz of 20 or above, but 40 or below.

5. (Original) The apparatus as claimed in claim 3, wherein said sheet member has a thickness of 0.1 mm or above, but 0.2 mm or below.

6. (Original) The apparatus as claimed in claim 3, wherein said sheet member is positioned such that an angle between said flat surface of said sheet member in the absence of

said image carrier and a line tangential to the surface of said image carrier and crossing said flat surface when said image carrier is present is between 20° and 100°.

7. (Original) The apparatus as claimed in claim 1, wherein the toner has a mean circularity of 0.93 or above.

8. (Original) The apparatus as claimed in claim 1, further comprising a process cartridge removably mounted to a body of said apparatus and comprising at least said image carrier and said flexible member.

9. (Currently Amended) In a process cartridge removably mounted to a body of an image forming apparatus comprising:

an image carrier;

developing means for developing a latent image formed on said image carrier by depositing a toner to thereby form a corresponding toner image;

image transferring means for forming an electric field between said image carrier and a subject body of image transfer to thereby transfer the toner image from said image carrier to said subject body;

cleaning means using a bladeless system for removing a residual toner left on said image carrier after image transfer without scraping off said residual toner with a blade member; and

a flexible member disposed upstream of the cleaning means and affixed at one edge portion and having a flat surface formed with a plurality of grooves at the other edge portion, wherein said plurality of grooves each extend over an image forming range of a surface of said image carrier perpendicularly to a direction in which said surface of said image carrier is movable, and said flexible member is positioned such that said flat surface contacts the surface of said image carrier with said flexible member being deformed;

wherein at ~~last~~ least said image carrier and said flexible member are constructed integrally with each other.

10.-16. (Canceled)

17. (New) An image forming apparatus comprising:

an image carrier configured to move in a first direction;

a developing device configured to form a toner image on a surface of the image carrier;

a cleaning device configured to remove a residual toner from the image carrier after transfer of the toner image from the image carrier; and

a flexible member comprising a grooved surface including a plurality of grooves extending perpendicular to the first direction, the grooved surface configured to contact the surface of the image carrier with a pressure from 0.1N to 0.8 N.

18. (New) The apparatus as claimed in claim 17, wherein the grooved surface has a surface roughness Rz from 20 to 40.

19. (New) The apparatus as claimed in claim 17, wherein the flexible member has a thickness from 0.1 mm to 0.2 mm.

20. (New) The apparatus as claimed in claim 17, wherein the flexible member is positioned such that an angle between the grooved surface in the absence of the image carrier and a line tangential to the surface of the image carrier and crossing the grooved surface when the image carrier is present is from 20° to 100°.

21. (New) An image forming apparatus comprising:

an image carrier configured to move in a first direction;

a developing device configured to form a toner image on a surface of the image carrier;

a cleaning device configured to remove a residual toner from the image carrier after transfer of the toner image from the image carrier; and

a flexible member disposed upstream of the cleaning device and comprising a grooved surface including a plurality of grooves extending perpendicular to the first direction.

22. (New) The apparatus as claimed in claim 21, wherein the cleaning device comprises a bladeless cleaning device.

23. (New) The apparatus as claimed in claim 21, wherein the cleaning device comprises a brush.

24. (New) The apparatus as claimed in claim 21, wherein the cleaning device comprises a brush roller.

25. (New) The apparatus as claimed in claim 21, wherein the grooves extend a length at least equal to a corresponding length of the surface of the image carrier.

26. (New) A process cartridge configured to be removably mounted to a body of an image forming apparatus, comprising:

an image carrier configured to move in a first direction in the body;

a developing device configured to form a toner image on a surface of the image carrier;

a cleaning device configured to remove a residual toner from the image carrier after transfer of the toner image from the image carrier; and

a flexible member disposed upstream of the cleaning device and comprising a grooved surface including a plurality of grooves extending perpendicular to the first direction.

27. (New) The cartridge as claimed in claim 26, wherein the cleaning device comprises a bladeless cleaning device.

28. (New) The cartridge as claimed in claim 26, wherein the cleaning device comprises a brush.

29. (New) The cartridge as claimed in claim 26, wherein the cleaning device comprises a brush roller.

30. (New) The cartridge as claimed in claim 26, wherein the grooves extend a length at least equal to a corresponding length of the surface of the image carrier.